

a protective overcoat on the magnetic layer,

wherein the substrate comprises about 0.5 to about 32 wt.% lithium oxide (Li₂O).

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Cont'd

3. (Amended) The magnetic recording medium according to claim 21, wherein the surface of the sealing layer is oxidized.

C2

5. (Amended) The magnetic recording medium according to claim 21, further comprising an adhesion enhancement layer between the substrate and the sealing layer.

C3

48. (Amended) The magnetic recording medium according to claim 21, wherein the NiNb sealing layer further comprises about 0.1 wt.% to about 5 wt.% of a material selected from the group consisting of boron, tungsten, tantalum, zirconium and phosphorus.

5. (Amended) The magnetic recording medium to claim 21, further comprising a chromium-vanadium underlayer on the sealing layer, wherein the magnetic layer comprises an alloy of Co, Cr, Pt and Ta.

C4

11. (Amended) The method according to claim 22, further comprising:
sputter depositing an underlayer on the sealing layer prior to said sputter depositing the magnetic layer; and
sputter depositing a protective overcoat on the magnetic layer,
wherein the substrate comprises about 0.5 to about 32 wt.% lithium oxide (Li₂O).

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12. (Amended) The method according to claim ~~22~~⁷, further comprising oxidizing the surface of the sealing layer.

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14. (Amended) The method according to claim ~~22~~⁷, further comprising sputter depositing an adhesion enhancement layer on the substrate prior to said sputter depositing the sealing layer.

(N.B.)
See para 16
16. (Amended) The method according to claim 22, wherein the thickness of the sealing layer is about 100Å to about 1,000Å.

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17. (Amended) The method according to claim ~~22~~⁷, wherein the amorphous NiNb sealing layer further comprises about 0.1 wt.% to about 5 wt.% of a material selected from the group consisting of boron, tungsten, tantalum, zirconium and phosphorus.

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18. (Amended) The method according to claim ~~22~~⁷, comprising sputter depositing the sealing layer using a target comprising at least 12 wt.% Nb.

(N.B.)
See para 17
19. (Amended) The method according to claim 22, wherein the magnetic layer comprises an alloy of Co, Cr, Pt and Ta.

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21. (Amended) A longitudinal or perpendicular magnetic recording medium comprising, in this order:

a glass or glass-ceramic substrate comprising Li;

a sealing layer comprising substantially amorphous NiNb directly deposited on the glass or glass-ceramic substrate; and

a magnetic layer,

wherein the sealing layer has a thickness of about 450Å or less and substantially prevents migration of Li from the substrate to the magnetic layer of the magnetic recording medium.

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22. (Amended) A method of manufacturing a longitudinal or perpendicular magnetic recording medium, the method comprising:

sputter depositing a sealing layer comprising substantially amorphous NiNb directly on a glass or glass-ceramic substrate comprising Li; and

sputter depositing a magnetic layer on the sealing layer;

wherein the sealing layer has a thickness of about 450Å or less and substantially prevents migration of Li from the substrate to the magnetic layer of the magnetic recording medium.

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23. (Amended) A longitudinal or perpendicular magnetic recording medium comprising, in this order:

a glass or glass-ceramic substrate comprising Li;

a sealing means having a thickness of about 450Å or less for substantially preventing migration of Li from the substrate to a magnetic layer of the magnetic recording medium; and
the magnetic layer.